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Competency Rising

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Today oft-used terms in medical education, at one time the words Systems Based Practice (SBP) and Practice Based Learning & Improvement (PBLI) were a source of consternation for medical educators. The terms entered our lexicon with the development of the six Accreditation Council on Graduate Medical Education (ACGME) competencies. The consternation arose from their inexplicability. The descriptions provided by the ACGME were broad and open to considerable interpretation. I recall being part of a delegation of residents cloistered in a conference room in Boston as part of a meeting called "Achieving Competency Today" (ACT)—the intended purpose of which was to help elaborate these twin mysterious competences.

Though I've been involved with quality improvement efforts, Plan-Do-Study-Act cycles, root cause analyses, and more recently team training and patient safety, the penny finally dropped recently. What it took was our hospital's migration from paper charts to an electronic medical record (EMR). "Black Sunday" occurred on July 29, 2012, and, naturally, my team was assigned the very first call cycle.

Almost at once, a sea change occurred. Much of the time on rounds inevitably became: How did you do that in the EMR? In between patients, the discussions amongst the team members involved questions about creating templates and order sets. Often, I overheard: "Hey, how did you import that lab? Did you have trouble doing this?"

Initially, I was irked with the turn that education had taken during rounds; I considered it a victory when I managed to squeeze in some chalk talks about clinical medicine. But it occurred to me that what the house staff were doing was nearly as valuable. An entirely new System (capital S) was being put into place, and the house staff were reacting to this new System and, by doing so, were inadvertently working on their SBP/PBLI competencies.

An interesting event occurred next that demonstrated real-time SBP, PBLI, patient safety, and professionalism all rolled into one unintentional activity. The day after that first call day, we found that two patients who we had "e-discharged" were never physically discharged. The housestaff identified this error when they arrived the next morning several hours prior to attending rounds. After checking on the undischarged patients and following up with the night coverage team, they delved into the discharge process according to the EMR instructions. After double-checking with the onsite EMR help staff to see if the error lay there, they spoke to the ward clerk and the nursing staff.

On attending rounds, they somewhat sheepishly reported what happened and, through their subsequent efforts, pinpointed that the discharge order in the EMR system was being placed automatically in "Pending" rather than "Active" status. In a subsequent EMR "superuser" meeting, the hospital administration addressed this issue through a combination of user education and policy change.

On teaching rounds that day, we discussed what the housestaff had done and equated the steps they took to a mini root cause analysis, using this opportunity to discuss SBP/PBLI and tools such as failure mode effects analyses. I emphasized that while there are an increasing number of electronic failsafes to catch errors and near-misses, it takes the wherewithal of individuals to actually fix things.

Upon reflection, all the sessions I have given or attended on quality improvement or SBP/PBLI did not measure up to this one example. I believe that the housestaff demonstrated the appropriate approach by systematically interviewing stakeholders and looking for systems causes when errors occurred. Once the team provided a summary analysis of what occurred, seeing a response from the administration in short order served to validate their efforts. This validation step is difficult to emulate in classroom sessions on PBLI/SBP and may be a critical step in achieving desired competencies. Prior to the new EMR, the tendency would be to find a work-around. Since the "go-live" weekend of the new EMR, the housestaff now have greater access to systems-level issues, and they have continued to root-out areas of inefficiency. These opportunities for systems-level learning should not only be encouraged but also captured, formalized, and incorporated into the education of medical students and trainees. *SGIM*